AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-38 **(Canceled)**

39. **(Currently amended)** A method for achieving at least a transient, localized, ~~modulation of vascular structure and/or function~~ physiological response, comprising:

topically administering to a patient in need of said modulation, a sufficient amount of a ~~porous~~ non-barrier forming material comprising poly-β-1→4 N-acetylglucosamine polymers, wherein the poly-β-1→4 N-acetylglucosamine polymer comprises about 50 to about 150,000 N-acetylglucosamine monosaccharides covalently attached in a β-1→4 conformation, wherein the non-barrier forming material is in the form of a solution, a suspension, an emulsion, a spray, or a foam, so that the patient experiences at least a transient, localized ~~modulation of vascular structure and/or function~~ physiological response selected from the group consisting of stimulation of endothelin-1 release, vasoconstriction, and reduction in blood flow out of a breached vessel.

40. **(Previously presented)** The method of claim 39, wherein the method achieves at least a transient, localized physiological response comprising stimulation of endothelin-1 release.

41. **(Previously presented)** The method of claim 40, wherein the endothelin-1 is released from vascular endothelial cells.

42. **(Previously presented)** The method of claim 39, wherein the method achieves at least a transient, localized physiological response comprising vasoconstriction.

43. **(Previously presented)** The method of claim 39, wherein the method achieves at least a transient, localized physiological response comprising reduction in blood flow out of a breached vessel.

44. **(Previously presented)** The method of claim 43, wherein the patient experiences cessation of blood flow out of the breached vessel.

45. **(Previously presented)** The method of claim 39, wherein the poly-β-1→4 N-acetylglucosamine polymer comprises about 50 to about 50,000 N-acetylglucosamine monosaccharides covalently attached in a β-1→4 conformation.

46. **(Previously presented)** The method of claim 45, wherein the poly-β-1→4 N-acetylglucosamine polymer comprises about 50 to about 10,000 N-acetylglucosamine monosaccharides covalently attached in a β-1→4 conformation.

47. **(Previously presented)** The method of claim 46, wherein the poly-β-1→4 N-acetylglucosamine polymer comprises about 50 to about 4,000 N-acetylglucosamine monosaccharides covalently attached in a β-1→4 conformation.

48. **(Previously presented)** The method of claim 39, wherein the poly-β-1→4 N-acetylglucosamine polymer comprises at least one non-acetylated glucosamine monosaccharide unit, and wherein at least 40% of the glucosamine monsaccharide units are N-acetylated.

49. **(Previously presented)** The method of claim 39, wherein the patient is a human.

50. **(Canceled)**

51. **(Currently amended)** The method of claim 39, wherein the ~~porous~~ non-barrier forming material is applied directly to a blood vessel.

52. **(Currently amended)** The method of claim 39, wherein the ~~vascular structure is~~ the physiological response affects a blood vessel selected from the group consisting of capillary, vein, and artery.

53. **(Previously presented)** The method of claim 52, wherein the blood vessel is a breached blood vessel.

54. **(Previously presented)** The method of claim 53, whereby the patient experiences cessation of bleeding.

55. **(Currently amended)** The method of claim 39, wherein the extent of the transient, localized ~~modulation of vascular structure and/or function~~ physiological response is substantially proportional to the amount of poly-β-1→4 N-acetylglucosamine administered.

56. **(Previously presented)** The method of claim 39, wherein said polymers are substantially free of protein.

57. **(Previously presented)** The method of claim 39, wherein said polymers are substantially free of organic contaminants.

58. **(Previously presented)** The method of claim 39, wherein said polymers are substantially free of inorganic contaminants.

59. **(Currently amended)** A method for treating a patient having a vascular disorder, comprising:

topically administering to a patient in need of such treatment, a sufficient amount of a ~~porous~~ non-barrier forming material comprising poly-β-1→4 N-acetylglucosamine polymers, wherein the poly-β-1→4 N-acetylglucosamine polymer comprises about 50 to about 150,000 N-acetylglucosamine monosaccharides covalently attached in a β-1→4 conformation, wherein the non-barrier forming material is in the form of a solution, suspension, emulsion, spray, or foam, whereby said administering ameliorates said vascular disorder.

60. **(Previously presented)** The method of claim 59, wherein the vascular disorder is selected from the group consisting of menorrhagia, cerebral aneurysm, abdominal aneurysm, uterine fibroid lesion, and blood vessel puncture.

61. **(Previously presented)** The method of claim 59, wherein said polymers are substantially free of protein.

62. **(Previously presented)** The method of claim 59, wherein said polymers are substantially free of organic contaminants.

63. **(Previously presented)** The method of claim 59, wherein said polymers are substantially free of inorganic contaminants.

64. **(Previously presented)** The method of claim 59, wherein the method achieves at least a transient, localized physiological response comprising stimulation of endothelin-1 release.

65. **(Previously presented)** The method of claim 59, wherein the method achieves at least a transient, localized physiological response comprising vasoconstriction.

66. **(Previously presented)** The method of claim 59, wherein the method achieves at least a transient, localized physiological response comprising reduction in blood flow out of a breached vessel.